

REMARKS

Applicants thanks Examiner Blackwell for indicating that Claim 6 is allowed.

Applicants also thank Examiner Blackwell for conducting the kind and courteous discussion with Applicants' representative, Daniel R. Evans, on March 21, 2006. The content of the discussion is reflected in the amendments to the claims and the following remarks.

The rejection of Claims 8-10, 13-14, and 19 under 35 U.S.C. § 112, second paragraph, is believed to be obviated in part by amendment and traversed in part based on the following remarks.

Claim 8 is amended to provide proper antecedent basis for "the low-reflectance film" of Claim 1.

In regard to Claim 13, the Examiner's attention is directed to page 8, lines 3-4 of the present specification, in which "a low-reflectance conductive film" is abbreviated as an "XY film." On the same page beginning at line 23, the present disclosure states that "the above-mentioned XY film can be formed by coating onto a substrate an X-coating liquid which contains both the conductive fine particles and the resistance-lowering material." The Office has taken the position that "X-coating liquid" should be interpreted as being a general coating liquid (see January 9, 2006 Office Action at page 2, part 2, ¶ 3). Applicants note that the term "X-coating liquid" is clearly disclosed in the present specification and Claim 13 is consistent with the disclosed meaning of X-coating liquid.

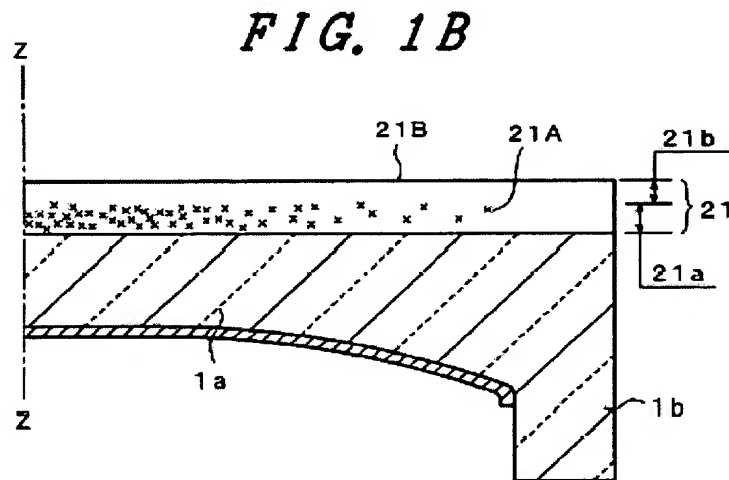
Applicants kindly request that the Examiner withdraw this rejection.

The rejection of Claims 1-5, 11-13, 15, and 18-21 under 35 U.S.C. § 102(a) over the disclosure of US 2002/0145377 (US '377) is respectfully traversed.

Claims 1, 13, 15, 18, and 20-21 are amended to include allowable limitations of at least one of Claims 3-4 and 6.

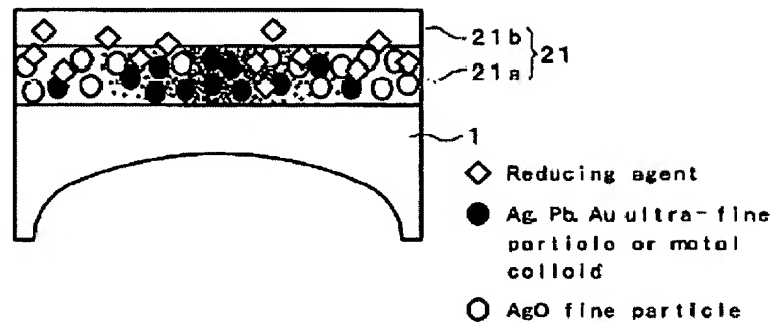
US '377 does not disclose or suggest the resistance-lowering material comprising a sulfur compound and/or titanium oxide as specified in these Claims.

US '377 is generally directed to a color cathode ray tube and a method for manufacturing the same. An enlarged cross-sectional view of a panel portion of a cathode ray tube is shown in Fig. 1b of US '377, and for convenience is included below.



US '377 discloses at paragraph 40 that a film 21 "is formed on the outer surface of the screen portion of the panel portion 1[, which] has a two-layered structure which is formed by laminating the low refractive index layer 21b to the light transmission control layer 21a as an upper layer." An enlarged view of the film 21 is shown in Fig. 5, and for convenience is included below.

FIG. 5



Applicants note that the light transmission control layer 21a contains a reducing agent, ultra-fine particles or metal colloid of Ag, Pb, Au, and AgO fine particles. The reducing agent contains thiouric acid, hydroquinone, or thiourea (see US '377 at ¶ 18 and Table 2 on page 4). But nowhere in the disclosure of US '377 is it disclosed or suggested to have a resistance-lowering material as presently claimed.

Accordingly, the presently pending claims are believed to be both novel and unobvious over the disclosure of US '377.

Applicants kindly request that the Examiner acknowledge the same and withdraw this rejection.

The rejection of Claims 1-3, 5, 11-13, 15, and 18-21 under 35 U.S.C. §102(a) over the disclosure of WO 01/98222 (WO '222) is respectfully traversed.

Claims 1, 13, 15, 18, and 20-21 are amended to include allowable limitations of at least one of Claims 3-4 and 6.

Like US '377, WO '222 does not disclose or suggest the resistance-lowering material comprising a sulfur compound and/or titanium oxide as specified in these Claims.

WO '222 is generally directed to a transparent film-coated substrate and a coating liquid for transparent film formation. WO '222 discloses that the transparent film-coated substrate contains "a substrate, an electroconductive layer formed on the surface of the substrate, and a transparent coating film formed on the surface of the electroconductive layer surface" (see WO '222 at page 11, lines 9-12). WO '222 also discloses that "[t]he electroconductive layer may be formed from any known electroconductive material" (see WO '222 at page 11, lines 24-25), in which the electroconductive material includes metals, inorganic oxides, electroconductive carbon, and electroconductive polymers (see WO '222 at page 12, lines 21-24). When fine metal particles are used, the fine metal particles may be prepared by a process which includes contacting a metal salt with a reducing agent, such as ferrous sulfate (see WO '222 text spanning page 14, line 25 to page 15, line 7), but the sulfur compound (a metallic sulfate) is unlike the presently claimed sulfur compounds. Moreover, WO '222 discloses that a "titanium lower order oxide" may be present (see WO '222 at page 17, lines 6-7). However, WO '222 does not specify the amount of titanium oxide.

In view of these differences, Applicants respectfully request that the Examiner withdraw this rejection.

Applicants would like the Examiner to consider the following passages found in the present Specification containing statements of criticality with respect to the sulfur compound and/or titanium oxide content.

The content of the sulfur compound in the above-mentioned Y-coating liquid is preferably from 0.01 to 1.5 mass % to the total amount of the Y-coating liquid. When the content is less than 0.01 mass %, the conductivity improving effect obtained by the addition of the sulfur compound is lowered, while when the content exceeds 1.5 mass %, the reflectivity of the film is increased, and the polymerization of a silicon alkoxide is hindered, so that the strength of the film is lowered. This is undesirable. The content is more preferably from 0.01 to 1.0 mass %, particularly preferably from 0.01 to 0.5 mass %, furthermore preferably from 0.01 to 0.2 mass %. The above-mentioned sulfur compound may be appropriately added in the course of the preparation of the above-mentioned Y-coating liquid. See present Specification text at page 18, lines 6-20.

The content of the sulfur compound in the conductive film formed is preferably from 0.1 to 10 mass %, when converted into the amount of sulfur in the conductive film, to the amount of the ITO fine particles in the conductive film. The content is particularly preferably from 0.1 to 7 mass %, furthermore preferably from 0.1 to 5 mass %. When the content is less than 0.1 mass %, the conductivity improvement effect obtained by the addition of the sulfur compound is lowered, while when the content exceeds 10 mass %, the reflectivity of the film is increased, and the polymerization of a silicon alkoxide is hindered, so that the strength of the film is lowered. This is undesirable. See present Specification text at page 18, line 21 – page 19, line 6.

When the titanium oxide source is contained in the above-mentioned X coating liquid, the content of the titanium oxide source is preferably from 0.1 to 20 mass %, when converted into the amount of titanium oxide, to the conductive fine particles. When the added amount is less than 0.1 mass %, a sufficient electromagnetic wave shielding performance is not exhibited, while when the added amount exceeds 20 mass %, the stability of the coating liquid is impaired, and titanium oxide which is present in an amount more than necessary could cause conductivity hindrance on the contrary. This is undesirable. The added amount is more preferably from 0.1 to 10 mass %, particularly from 0.1 to 7 mass %, still more preferably from 0.1 to 5 mass %. Furthermore, the titanium oxide source may be added properly in the course of the preparation of the above-mentioned X coating liquid. See present Specification text at page 23, line 12 – page 24, line 1.

When the titanium oxide source is contained in the above-mentioned Y-coating liquid, the amount of the titanium oxide source to be added is preferably from 0.01 to 1.0 mass %, when converted to the amount of titanium oxide, to the total amount of the Y-coating liquid. When the added amount is less than 0.01 mass %, a sufficient electromagnetic wave shielding performance is not exhibited, while when the added amount exceeds 1.0 mass %, the reflectivity of the film is increased, and the polymerization of a silicon alkoxide which is a silicon compound is hindered, so that the strength of the film is lowered. This is undesirable. The amount to be added is more preferably from 0.01 to 0.5 mass %, particularly preferably from 0.01 to 0.3 mass %. The titanium oxide source may be appropriately added in the course

of the preparation of the above-mentioned Y-coating liquid. See present Specification text at page 24, lines 2-17.

The content of titanium oxide in the formed conductive film is preferably from 0.1 to 20 mass % to the conductive fine particles. When the added amount is less than 0.1 mass %, a sufficient electromagnetic wave shielding performance is not exhibited, while when the added amount exceeds 20 mass %, the stability of the coating liquid is impaired, and titanium oxide which is present in an amount more than necessary could cause conductivity hindrance on the contrary. This is undesirable. The amount to be added is more preferably from 0.1 to 10 mass %, particularly preferably from 0.1 to 7 mass %, still more preferably from 0.1 to 5 mass %. See present Specification text at page 24, line 18 – page 25, line 2.

In view of the differences and the statements of criticality, Applicants believe that all aspects of the presently claimed invention are unobvious over any one of US '377 and WO '222.

Applicants kindly request that the Examiner acknowledge the same and pass this application to issue.

An Information Disclosure Statement was filed on April 16, 2004 citing 17 references on three separate 1449 forms. Applicants received an indication that the Examiner considered 9 of the 17 references, as indicated by the Examiner- signed, initialed, and dated 1449 forms attached to January 9, 2006 Office Action. However, the Examiner did not consider 8 other references that are listed on 1449 form "page 2 of 3." Inspection of the online file wrapper shows only 2 of the 3 pages of the 1449 forms have been scanned into the electronic file wrapper. Because it appears that the electronic file wrapper does not accurately reflect what was filed in the U.S. Patent Office, Applicants concurrently file an Agents' Declaration containing copies of the Information Disclosure Statement that were filed on April 16, 2004, which include: Information Disclosure Statement Transmittal Letter, 3 pages of 1449 Forms; and date-stamped filing receipt dated April 16, 2004.

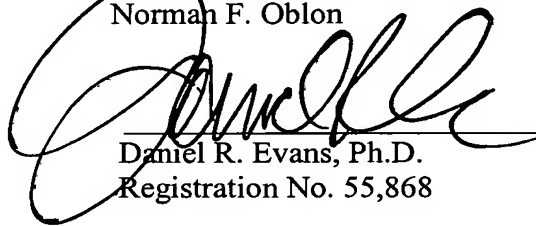
These references were timely cited prior to an examination on the merits.

Accordingly, Applicants request that the Examiner consider these references and provide an acknowledgment of the same.

In view of the amendments to the claims and the preceding remarks, Applicants believe that the present application is now in a condition for allowance. Should the Examiner have any questions concerning the present response and believe that a discussion would be helpful in advancing this application toward allowance, she is encouraged to contact Applicants' undersigned representative at the below-listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

A handwritten signature in black ink, appearing to read 'D. Evans', is written over a horizontal line. Below the line, the text 'Daniel R. Evans, Ph.D.' and 'Registration No. 55,868' is printed.

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